

Notice of Allowability

Application No.

10/534,662

Examiner

CHUONG T. HO

Applicant(s)

CHEN, XIAOBAO

Art Unit

2419

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/24/08.
2. ☒ The allowed claim(s) is/are 1-2,4-11,12-14,15,16,18,19-21 renumbered 1-19 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 02/12/09.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. The amendment filed 11/24/08 have been entered and made of record.

Specification

2. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. John M. Carson on February 12, 2009.

4. The application has been amended as follows:

IN THE CLAIMS

Claim 1 has been amended as follows:

A method of filtering at a network gateway data packets of a packet data communication session between a source and a destination node, the data packets having a header including a destination address and an extension header, the method comprising:

selectively blocking at the network gateway, ones of the data packets where neither the destination address nor the extension header matches a predetermined address criterion, wherein the destination node has a first network address during a first period of the packet data communication session and a second, different network address during a second, subsequent period of the data communication session, and the source node transmits packets having the first network address as the destination address during the first period, transmits packets having the second network address as the destination address and the first network address in the extension header during the second period.

Claim 12 has been amended as follows:

A method of filtering at a network gateway data packets of a packet data communication session between a source node and a destination node, the data packets having a header including a destination address, the method comprising:

selectively blocking by the network gateway ones of the data packets where the destination address does not meet a destination address criterion and does not meet a forwarding agent criterion which defines an address of at least one forwarding agent which forwards packets addressed to the forwarding agent to the destination node at a network address specified in the payload of the packet, wherein the destination node has a first network address during a first period of the packet data communication session and a second, different network address during a second, subsequent period of the data communication session, and the source node transmits packets having the first

network address as the destination address during the first period, and transmits packets having the second network address as the destination address and the first network address in the extension header during the second period.

Claim 15 has been amended as follows:

A method of transmitting data packets in a source node of a packet data network, comprising:

establishing a packet data communication session with a destination node at a first network address via a network gateway such that the gateway applies a filter to the data packets of the communication session based on a destination address of the data packets, wherein the filter selectively blocks ones of the data packets where neither an address nor an extension header of the destination node matches a predetermined address criterion;

receiving an indication of a second network address of the destination node during the session'; and

transmitting subsequent packets within the session addressed to the second network address and containing the first network address in an extension header for containing information to be read by intermediate nodes between the source node and the destination node,

wherein the destination node has the first network address during a first period of data communication session and the second, different network address during a second, subsequent period of the data communication session, and the source node

transmits packets having the first network address as the destination address during the first period, and transmits packets having the second network address as the destination address and the first network address in the extension header during the second period.

Claim 16 has been amended as follows:

A method of applying a destination address based filter at a network gateway to a packet data communication session between a source node and a destination node, wherein the destination node roams from a home address in a home network to a care-of address in a foreign network and sends a binding update to the source node so that the source node addresses subsequent packets in the session to the care-of address and places the home address in an extension header of the subsequent packets, the method comprising:

applying by the gateway the destination address-based packet filter to the extension header of the subsequent packets, wherein the filter selectively blocks ones of the data packets where neither an address nor an extension header of the destination node matches a predetermined address criterion, and wherein the extension header is used by the destination node to restore the home address as the destination address of the subsequent packets, wherein the destination node has a first network address during a first period of the packet data communication session and a second, different network address during a second, subsequent period of the data communication session, and the source node transmits packets having the first network address as the

destination address during the first period, and transmits packets having the second network address as the destination address and the first network address in the extension header during the second period.

Claim 19 has been amended as follows:

A method of applying a destination address based packet filter at a network gateway to a packet data communication session between a source node and a destination node, wherein the source node roams from a home address in a home network to a care-of address in a foreign network having said network gateway, and sets up a reverse tunnel to a home agent in the home network for forwarding packets to the destination node, wherein the source node places the address of the destination node in an extension header of packets sent from the foreign network, the method comprising:
applying the destination address filter to the extension header of the packets, wherein the filter selectively blocks ones of the data packets where neither an address nor an extension header of the destination node matches a predetermined address criterion,
and wherein the destination node has a first network address during a first period of the packet data communication session and a second, different network address during a second, subsequent period of the data communication session, and the source node transmits packets having the first network address as the destination address during the first period, and transmits packets having the second network address as the destination address and the first network address in the extension header during the second period.

Claim 20 has been amended as follows:

A computer readable medium encoded with computer executable instructions which are executed by the computer to perform a method of filtering data packets at a network gateway, the data packets having a header including a destination address and an extension header, the method comprising:

selectively blocking ones of the data packets where neither the destination address nor the extension header matches a predetermined address criterion, wherein the destination node has a first network address during a first period of the packet data communication session and a second, different network address during a second, subsequent period of the data communication session, and the source node transmits packets having the first network address as the destination address during the first period, and transmits packets having the second network address as the destination address and the first network address in the extension header during the second period

Claim 21 has been amended as follows:

An apparatus configured to filter data packets at a network gateway, the data packets having a header including a destination address and an extension header, the apparatus comprising:

a filter is configured to selectively block ones of the data packets when neither the destination address nor the extension header matches a predetermined address criterion, wherein the destination node has a first network address during a first period

of the packet data communication session and a second, different network address during a second, subsequent period of the data communication session and the source node transmits packets having the first network address as the destination address during the first period, and transmits packets having the second network address ~ as the destination address and the first network address in the extension header during the second period.

Allowable Subject Matter

5. Claims 1-2, 4-11, 12-14, 15, 16, 18, 19, 20, 21 are allowed.
6. The following is a statement of reasons for the indication of allowable subject matter: Claim 1 is allowed. The prior art of record, considered individually or in combination, fails to fairly teach, show or suggest the claimed invention of claim 1, comprising steps for "selectively blocking at the network gateway, ones of the data packets where neither the destination address nor the extension header matches a predetermined address criterion, wherein the destination node has a first network address during a first period of the packet data communication session and a second, different network address during a second, subsequent period of the data communication session, and the source node transmits packets having the first network address as the destination address during the first period, transmits packets having the second network address as the destination address and the first network address in the extension header during the second period"

Claim 12 is allowed. The prior art of record, considered individually or in combination, fails to fairly teach, show or suggest the claimed invention of claim 12 , comprising steps for "selectively blocking by the network gateway ones of the data packets where the destination address does not meet a destination address criterion and does not meet a forwarding agent criterion which defines an address of at least one forwarding agent which forwards packets addressed to the forwarding agent to the destination node at a network address specified in the payload of the packet, wherein the destination node has a first network address during a first period of the packet data communication session and a second, different network address during a second, subsequent period of the data communication session, and the source node transmits packets having the first network address as the destination address during the first period, and transmits packets having the second network address as the destination address and the first network address in the extension header during the second period".

Claim 15 is allowed. The prior art of record, considered individually or in combination, fails to fairly teach, show or suggest the claimed invention of claim 15 , comprising steps for "where neither an address nor an extension header of the destination node matches a predetermined address criterion; wherein the destination node has the first network address during a first period of data communication session and the second, different network address during a second, subsequent period of the data communication session, and the source node transmits packets having the first network address as the destination address during the first period, and transmits packets having the second

network address as the destination address and the first network address in the extension header during the second period.

Claim 16 is allowed. The prior art of record, considered individually or in combination, fails to fairly teach, show or suggest the claimed invention of claim 16, comprising steps for "wherein the filter selectively blocks ones of the data packets where neither an address nor an extension header of the destination node matches a predetermined address criterion, wherein the destination node has a first network address during a first period of the packet data communication session and a second, different network address during a second, subsequent period of the data communication session, and the source node transmits packets having the first network address as the destination address during the first period, and transmits packets having the second network address as the destination address and the first network address in the extension header during the second period".

Claim 19 is allowed. The prior art of record, considered individually or in combination, fails to fairly teach, show or suggest the claimed invention of claim 19, comprising steps for "wherein the filter selectively blocks ones of the data packets where neither an address nor an extension header of the destination node matches a predetermined address criterion, and wherein the destination node has a first network address during a first period of the packet data communication session and a second, different network address during a second, subsequent period of the data communication session, and

the source node transmits packets having the first network address as the destination address during the first period, and transmits packets having the second network address as the destination address and the first network address in the extension header during the second period".

Claim 20 is allowed. The prior art of record, considered individually or in combination, fails to fairly teach, show or suggest the claimed invention of claim 20, comprising steps for "selectively blocking ones of the data packets where neither the destination address nor the extension header matches a predetermined address criterion, wherein the destination node has a first network address during a first period of the packet data communication session and a second, different network address during a second, subsequent period of the data communication session, and the source node transmits packets having the first network address as the destination address during the first period, and transmits packets having the second network address as the destination address and the first network address in the extension header during the second period".

Claim 21 is allowed. The prior art of record, considered individually or in combination, fails to fairly teach, show or suggest the claimed invention of claim 21, comprising steps for "selectively block ones of the data packets when neither the destination address nor the extension header matches a predetermined address criterion, wherein the destination node has a first network address during a first period of the packet data

communication session and a second, different network address during a second, subsequent period of the data communication session and the source node transmits packets having the first network address as the destination address during the first period, and transmits packets having the second network address ~ as the destination address and the first network address in the extension header during the second period".

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Zhang et al. (Patent No.: 7,272,148 B2).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHUONG T. HO whose telephone number is (571)272-3133. The examiner can normally be reached on 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, EDAN ORGAD can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CH
02/12/09

/Edan Orgad/

Supervisory Patent Examiner, Art Unit 2419